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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/888,618	06/26/2001	Frederic Gagnon	051481-5071	8348

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WASHINGTON, DC 20004

EXAMINER
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KRISHNAMURTHY, RAMESH

ART UNIT	PAPER NUMBER
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3753

DATE MAILED: 07/28/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/888,618

Applicant(s)

GAGNON, FREDERIC

Examiner

Ramesh Krishnamurthy

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 31 March 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1 - 19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 3, 4 and 13 - 18 is/are allowed.
- 6) ☒ Claim(s) 1, 2, 5 - 12 and 19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other:

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This office action is responsive to amendment filed 03/31/2003.

**Claims 1 – 19 are pending.**

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 2, 5 – 9 and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by de Versterre et al..

The patent to de Versterre et al. discloses (Figs. 1 – 5) a flow controller valve comprising:

An inlet (14) disposed along a first axis;

At least two channels ((23) in each module (11)) in communication with the inlet (14), the at least two channels ((23) in each module (11)) disposed along a second axis;

At least one mass sensor (77) disposed proximate at least one (23) of the at least two channels;

A seat portion (40) disposed between the inlet (14) and one channel (23) of the at least two channels;

At least two closure members (32) (one in each module (10, 11)), one of the at least two closure members disposed proximate one channel (23) of the at least two channels, the other ((32) in the adjacent module (10,11)) of the at least two closure members disposed proximate the other channel ((23) in the adjacent module (11)) of the at least two channels, each closure member movable to a plurality of positions, a

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first position permitting fluid flow between inlet and each channel and a second position preventing such flow (Col. 4, lines 4 – 16); and

At least two actuators ((57-70) in each module (10)) coupled to a respective one (32) of the at least two closure members, the at least two actuators responsive (via (54) – the chassis module of electronic components, see Fig. 5) to one of the mass sensors (77) in each channel of the at least two channels to move a respective one of the at least two closure members between the first and the second position.

It is noted that the illustrative example disclosed in de Versterre et al. pertains to using the valve with a liquid but the valve is usable with any fluid including air. The recitation of “fuel cells” in the preamble of claim 1 pertains to intended use of the device claimed and as such is not given any patentable weight in this office action.

Regarding claim 2, it is noted that the valve seat (40) is annular in nature and is disposed relative to a third axis that is transverse to the first axis (of channel (14)) and the second axis (of channel (23)).

Regarding claim 5, it is noted that the closure member (32) does move along the third axis between first and second positions (Fig. 4 and Col. 4, lines 4 – 16).

Regarding claim 6, it is noted that each (23) of the at least two channels comprises an inlet portion (near seat (40)) that is transverse to the first axis and an outlet portion (near (22)) that is disposed along a fourth axis, that is spaced from the first axis by a distance, the distance containing the seat portion (40).

Regarding claim 7, it is noted that the seat portion (40) has a seating surface which the closure member contacts (Fig. 4) in a closed position thereby forming a seal.

Regarding claim 8, it is noted that the actuator (57 – 70) comprises (Fig. 4) a sliding bearing (79), the sliding bearing configured to permit the closure member to reciprocate between the first and second positions.

Regarding claim 9, it is noted that the actuator (57 – 70) comprises a housing (See fig. 4) (50, 18, 19) the housing having a first wall (a portion of (50) and the corresponding part of (11)) and second wall (the right descending wall portion of (50) near (51)) along the third axis, a third wall (41) disposed along the first axis, a fourth wall (18) along the fourth axis, the first and the third walls formed as part of the inlet portion and the second and the fourth walls formed as part of the outlet portion.

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 10 – 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over de Versterre et al. as applied to claims 1, 2 and 5 – 9 above.

Regarding claims 10 and 11, it is noted that de Versterre et al. discloses a sensor cap (38) that houses the various electrical connections associated with the actuator. At the time the invention was made it would have been a matter of obvious design choice to a person ordinary skill in the art to place the sensor cap configured to couple with the first and second walls of the actuator because the applicant has not disclosed that such a placement provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected the

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applicant's invention to perform equally well with the sensor cap placed as in the device of de Versterre et al. since a mere change in the position of the sensor cap would not alter the functioning of the device of either the applicant or that of de Versterre et al..

Regarding claim 12, it is noted that in de Versterre et al. the first and third walls of each actuator is parallel to the corresponding walls of the other actuator of the at least two actuators. At the time the invention was made, it would have been an obvious matter of design choice to a person of ordinary skill in the art to orient the actuators such that the first and third walls of each actuator is orthogonal to the corresponding walls of the other actuator of the at least two actuators because the applicant has not disclosed that such a placement provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected the applicant's invention to perform equally well with the actuators placed as in the device of de Versterre et al. since a mere change in the position of the other of the at least two actuators in relation to one actuator would not alter the functioning of the device of the applicant.

5. Claims 3, 4 and 13 – 18 are allowed.

#### ***Response to Arguments***

6. Applicant's arguments, see page 9 of the response, filed 03/31/2003, with respect to claims 13 - 18 have been fully considered and are persuasive. The rejection of claims 13 - 18 has been withdrawn.

7. Applicant's arguments filed 03/31/2003 with respect to claims 1, 2, 5 – 12 and 19 have been fully considered but they are not persuasive. Applicant appears to be arguing

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that the limitation "at least two actuators coupled to a respective one of the at least two closure members" pertains to two actuators coupled to a closure member. However, such an interpretation is contrary to the disclosure as filed. In the office action this limitation is interpreted to mean an actuator coupled to a closure member as consistent with the disclosure as filed.

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ramesh Krishnamurthy whose telephone number is (703) 305 - 5295. The examiner can normally be reached on Monday - Friday from 8:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John A. Rivell, can be reached on (703) 308 - 2599. The fax phone number

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for the organization where this application or proceeding is assigned is (703) 872 – 9302 and for after-final communications, the fax phone number is (703) 872 9303.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308 – 0861.

Ramesh Krishnamurthy  
Examiner  
Art Unit 3753

  
JOHN RIVELL  
PRIMARY EXAMINER  
ART UNIT 347